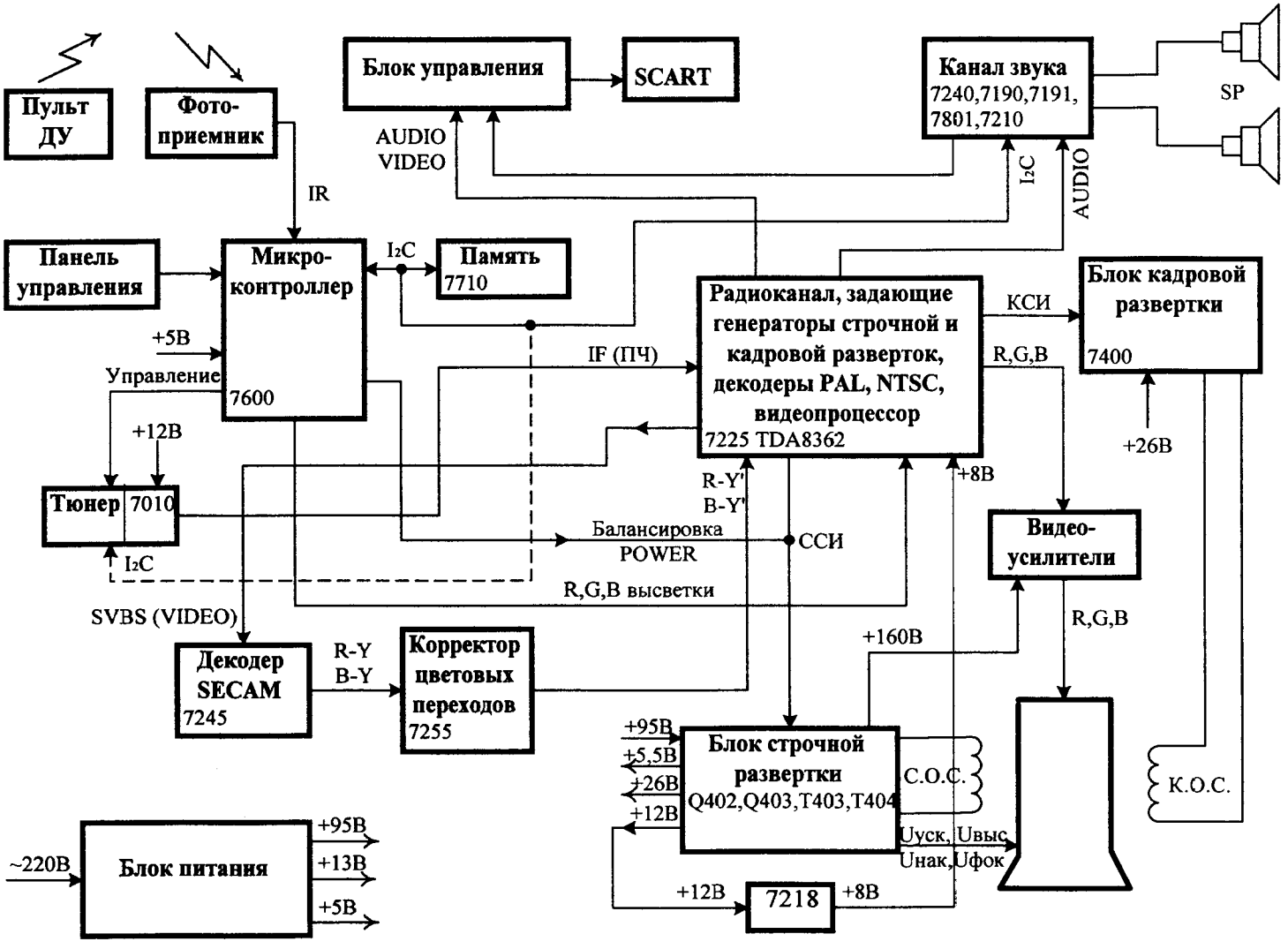
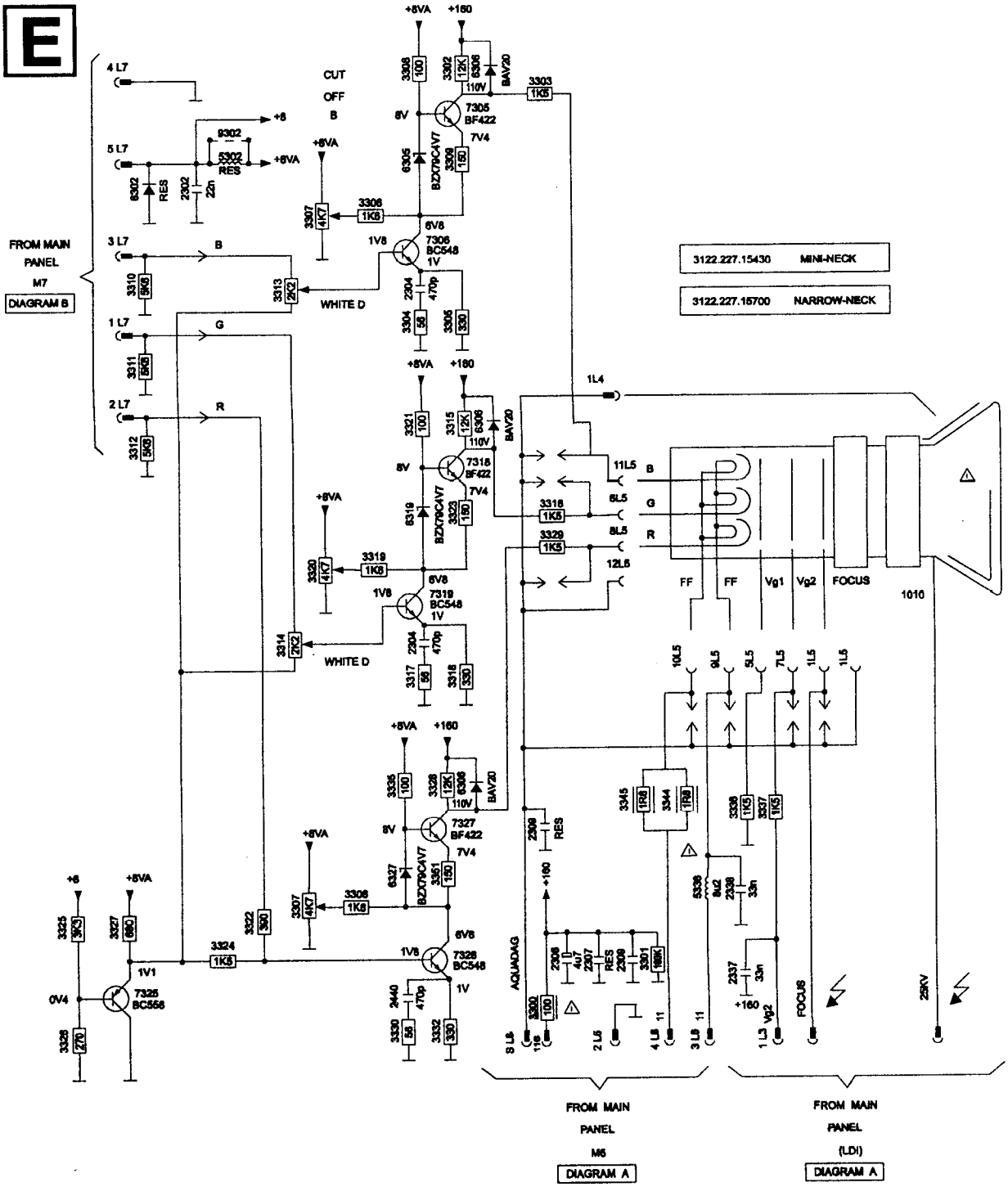
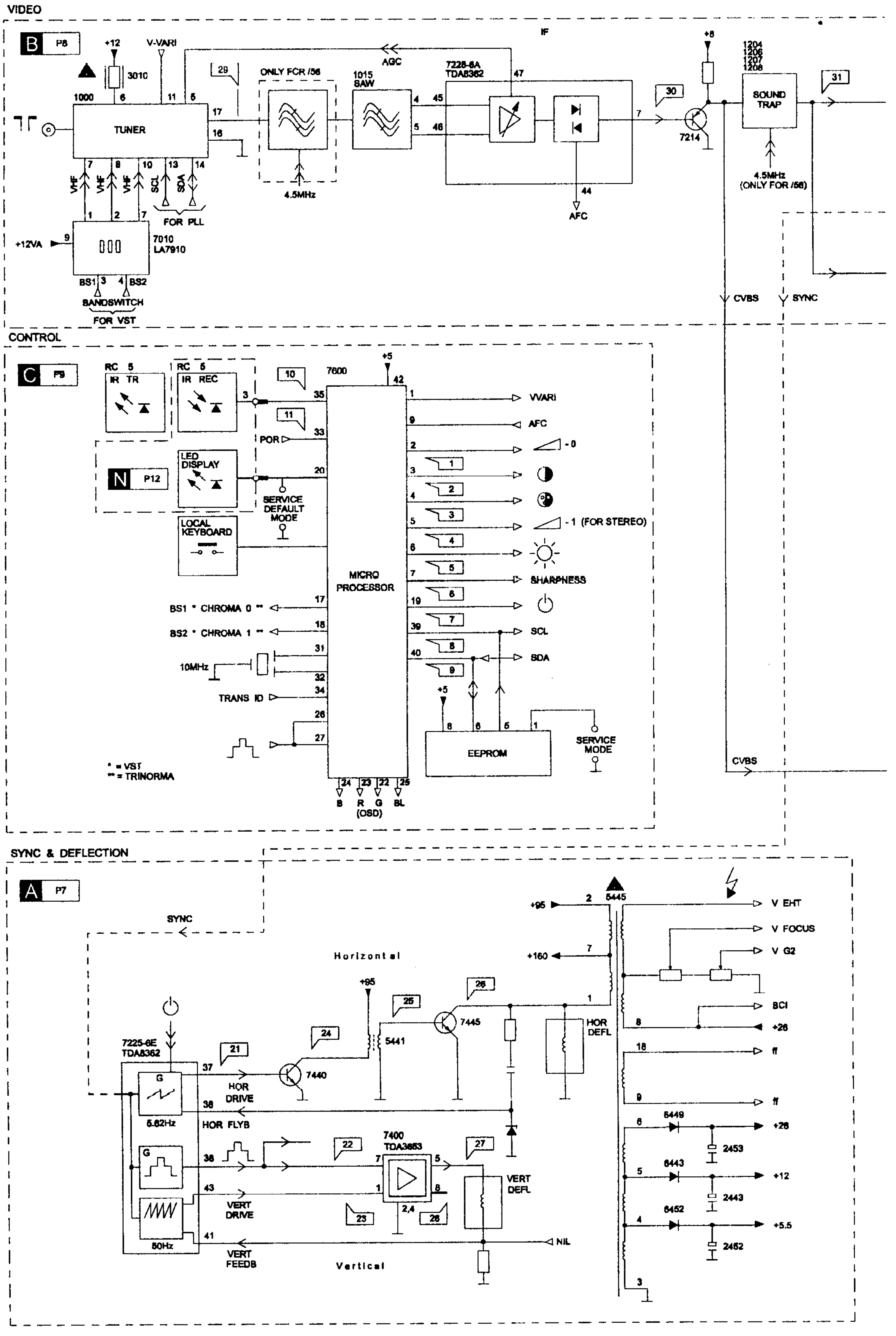
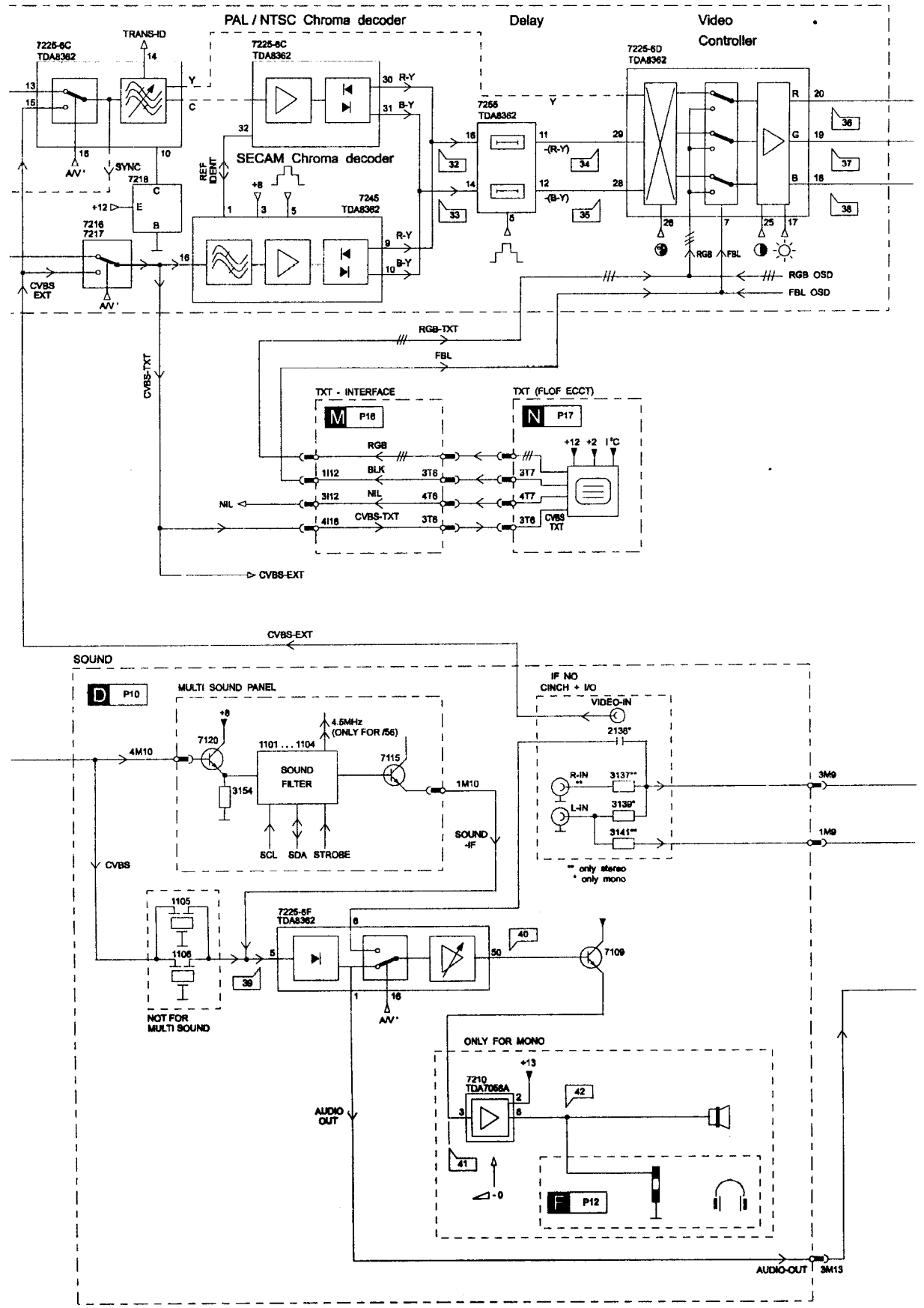
Структурная схема.

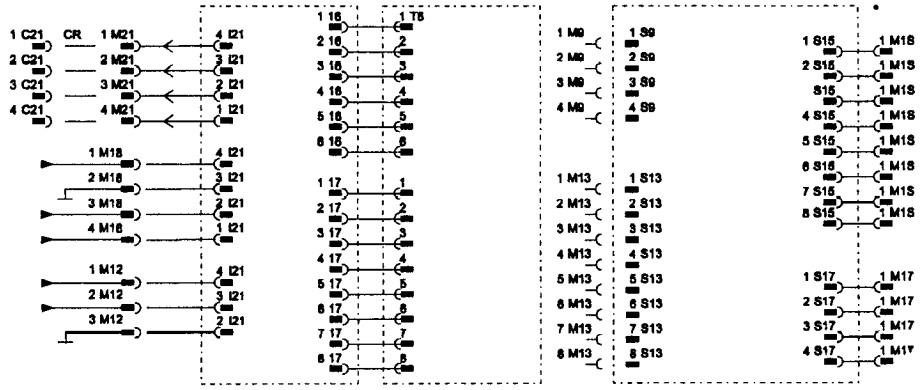



E
CUT OFF B
FROM MAIN PANEL M7 DIAGRAM B
WHITE D
WHITE D
3122.227.15430 MINI-NECK
3122.227.15700 NARROW-NECK
FF
FF
Vg1
Vg2
FOCUS
1010
AQUADAG
FOCUS
25KV
FROM MAIN PANEL M6 DIAGRAM A
FROM MAIN PANEL (LDI) DIAGRAM A


VIDEO
B P8
+12
V-VARI
IF
AGC
3010
29
ONLY FOR /56
1015 SAW
7228-6A TDA8362
+8
1204 1206 1207 1208
SOUND TRAP
31
30
1000
TUNER
4.5MHz
AFC
7214
4.5MHz (ONLY FOR /56)
VHF
SCL
SDA
FOR PLL
+12VA
7010 LA7910
BS1
BS2
BANDSWITCH
FOR VST
CVBS
SYNC
CONTROL
C P9
RC 5 IR TR
RC 5 IR REC
7600
+5
VVARI
AFC
POR
N P12
LED DISPLAY
SERVICE DEFAULT MODE
- 1 (FOR STEREO)
LOCAL KEYBOARD
MICRO PROCESSOR
SHARPNESS
BS1 * CHROMA 0 **
BS2 * CHROMA 1 **
SCL
SDA
10MHz
TRANS ID
EEPROM
SERVICE MODE
CVBS
* = VST
** = TRINORMA
B R G BL
(OSD)
SYNC & DEFLECTION
A P7
SYNC
5445
+95
V EHT
V FOCUS
V G2
+160
Horizontal
BCI
+26
7225-6E TDA8362
7445
5441
7440
HOR DEFL
HOR DRIVE
HOR FLYB
5.62Hz
7400 TDA3653
VERT DEFL
VERT DRIVE
50Hz
VERT FEEDB
NIL
Vertical
6449
6443
6452
2453
2443
2452
+26
+12
+5.5

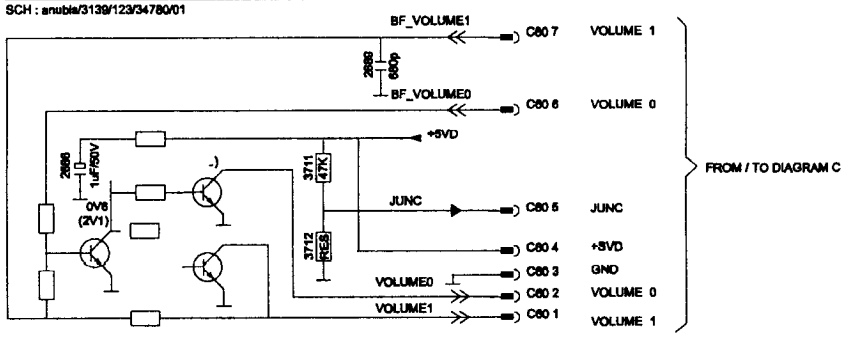

PAL / NTSC Chroma decoder
Delay
Video Controller
TRANS-ID
7225-6C TDA8362
SECAM Chroma decoder
7255 TDA8362
7225-6D TDA8362
SYNC
7218
7216 7217
7245 TDA8362
REF IDENT
R-Y
B-Y
-(R-Y)
-(B-Y)
RGB
FBL
RGB OSD
FBL OSD
CVBS EXT
CVBS-TXT
RGB-TXT
TXT - INTERFACE
TXT (FLOF ECCT)
M P16
N P17
CVBS-EXT
SOUND
D P10
MULTI SOUND PANEL
4M10
7120
4.5MHz (ONLY FOR /56)
1101 . . . 1104
SOUND FILTER
7115
1M10
SCL
SDA
STROBE
SOUND -IF
CVBS
IF NO CINCH + I/O
VIDEO-IN
R-IN
L-IN
3M9
1M9
** only stereo
* only mono
1105
1106
NOT FOR MULTI SOUND
7225-6F TDA8362
7109
A/V'
ONLY FOR MONO
7210 TDA7056A
AUDIO OUT
F P12
AUDIO-OUT
3M13

F



VOLUMECONTROL PANEL

SCH : anubis/3139/123/34780/01



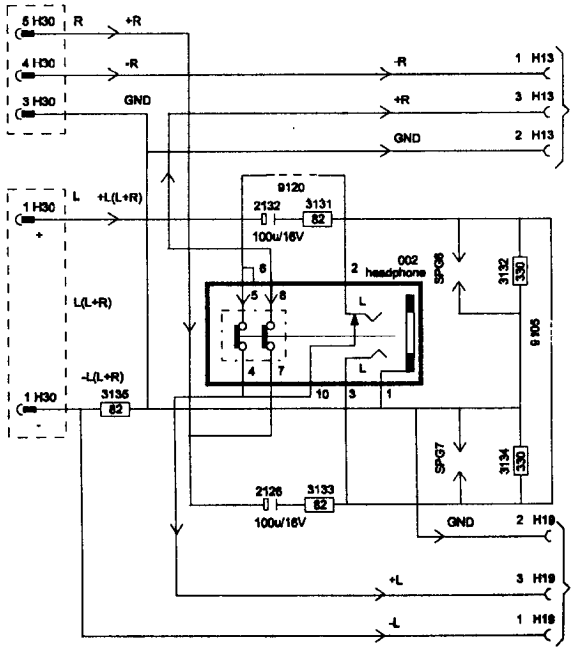
..V.. = SOUND
(..V..) = MUTE

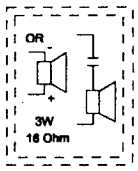
HEADPHONE PANEL

SCH : anubis/3139/123/34780/01

FROM S30

FROM M30 OR S30

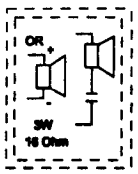




STEREO (R)

INTERNAL LOUDSPEAKERS

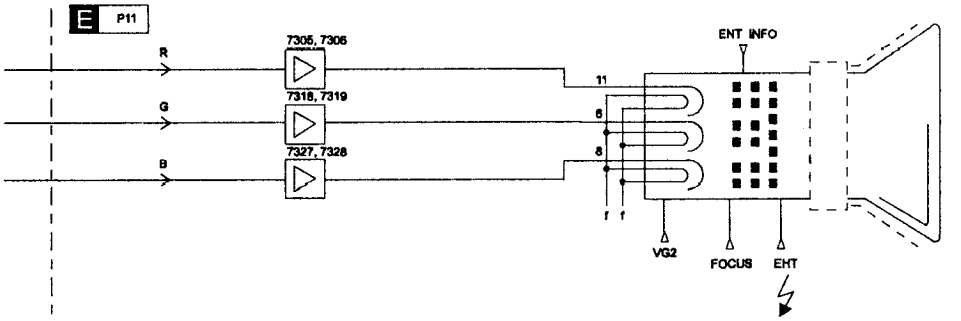
	MONO	STEREO
2125	-	100u/16V
2126	-	100u/16V
3131	-	82
3132	56	330
3133	-	82
3134	-	330
3135	82	-
9105	JMP	-
9110	JMP	-
X13	-	WTB
X14	WTB	WTB



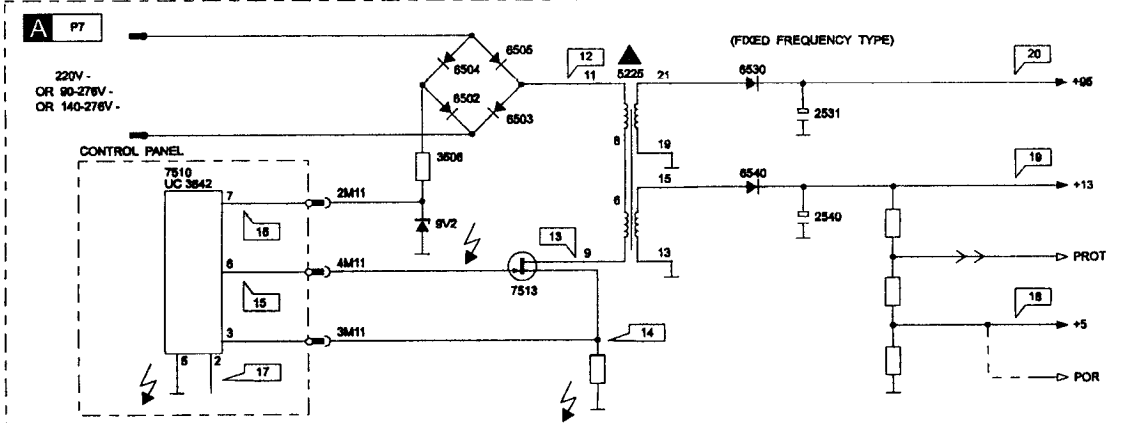
MONO (L+R)
STEREO (L)

INTERNAL LOUDSPEAKERS

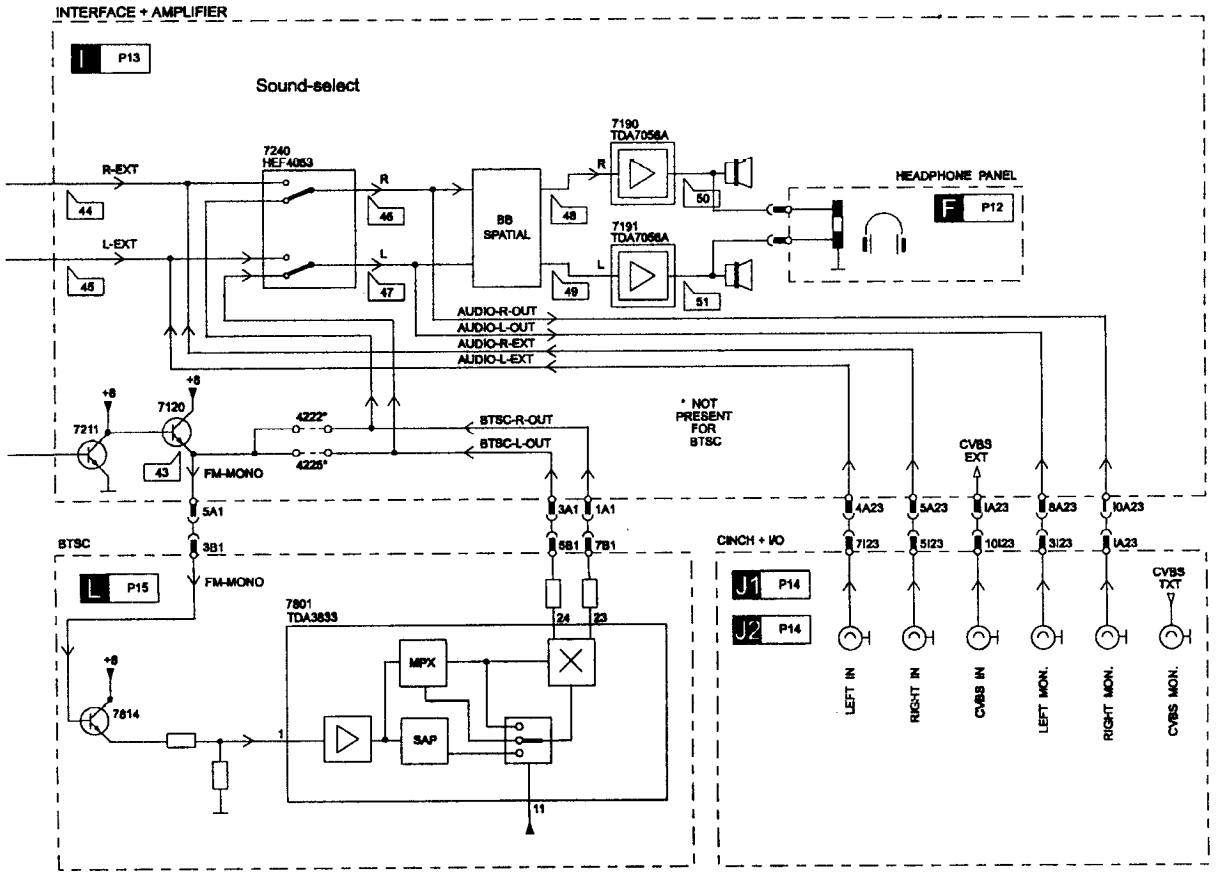
CRT

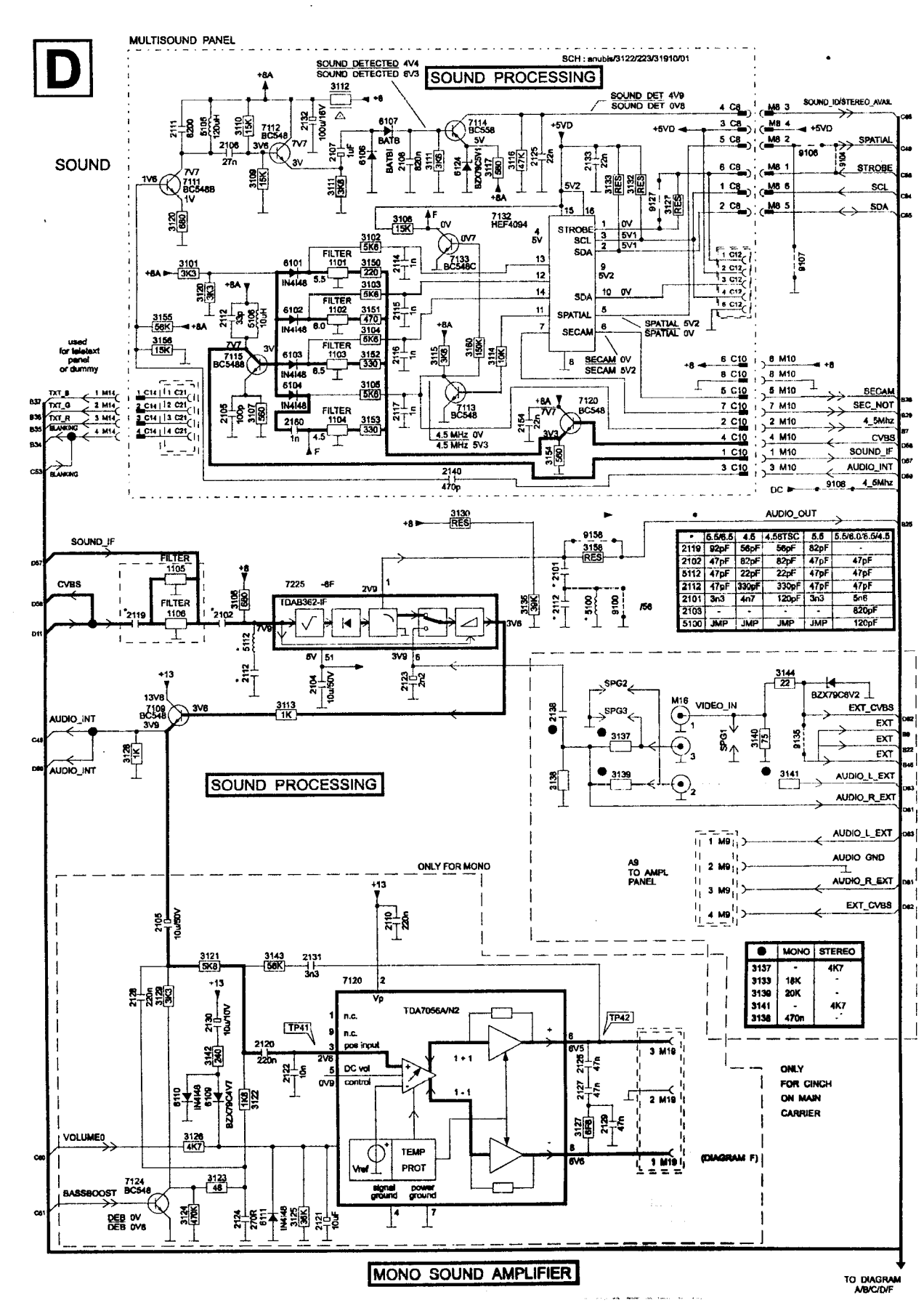


POWER SUPPLY



INTERFACE + AMPLIFIER



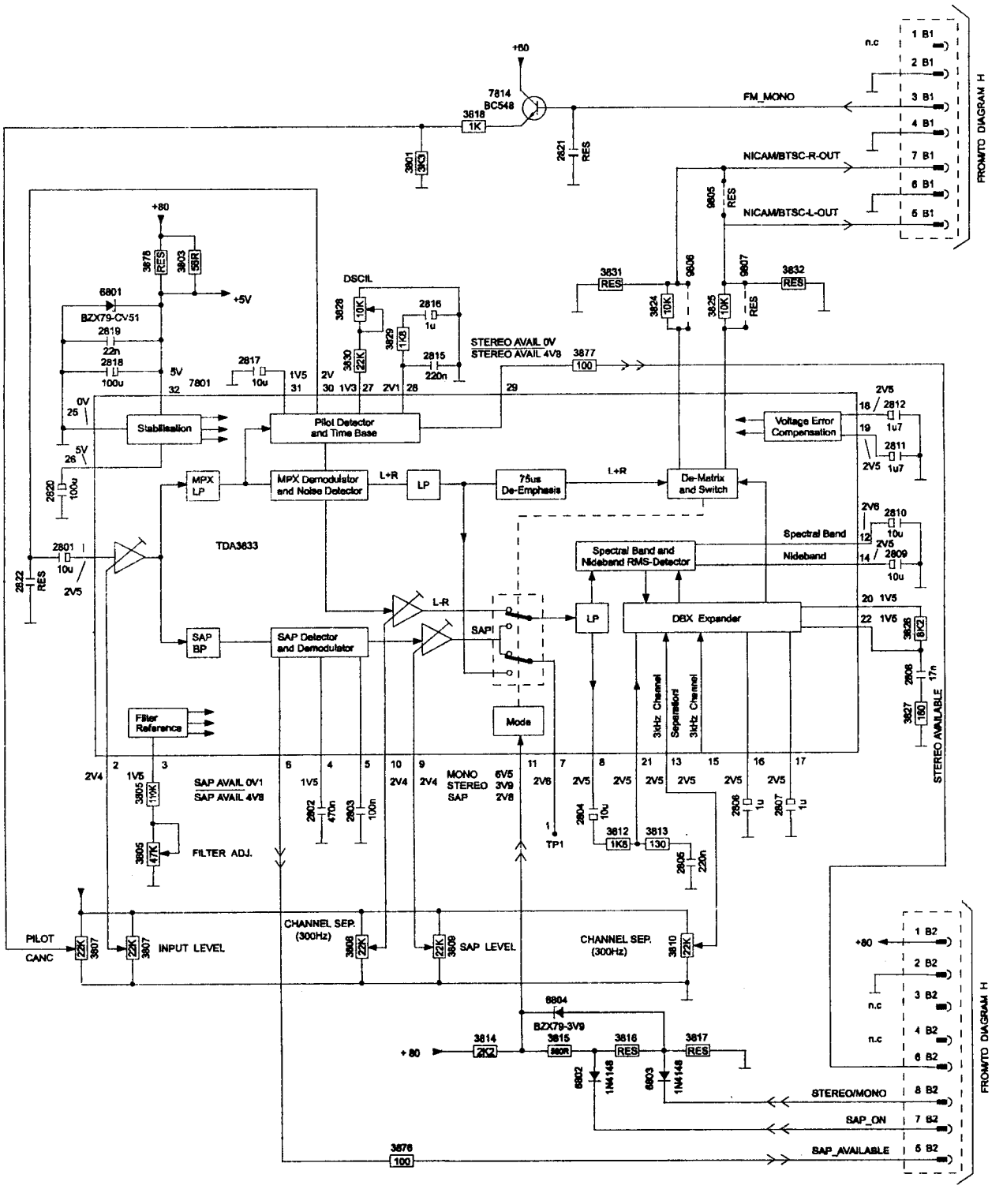


*	5.5/6.5	4.5	4.5STSC	5.5	5.5/6.0/6.5/4.5
2119	92pF	56pF	56pF	82pF	-
2102	47pF	82pF	82pF	47pF	47pF
5112	47pF	22pF	22pF	47pF	47pF
2112	47pF	330pF	330pF	47pF	47pF
2101	3n3	4n7	120pF	3n3	5n6
2103	-	-	-	-	820pF
5100	JMP	JMP	JMP	JMP	120pF

●	MONO	STEREO
3137	-	4K7
3133	18K	-
3139	20K	-
3141	-	4K7
3138	470n	-

L

BTSC

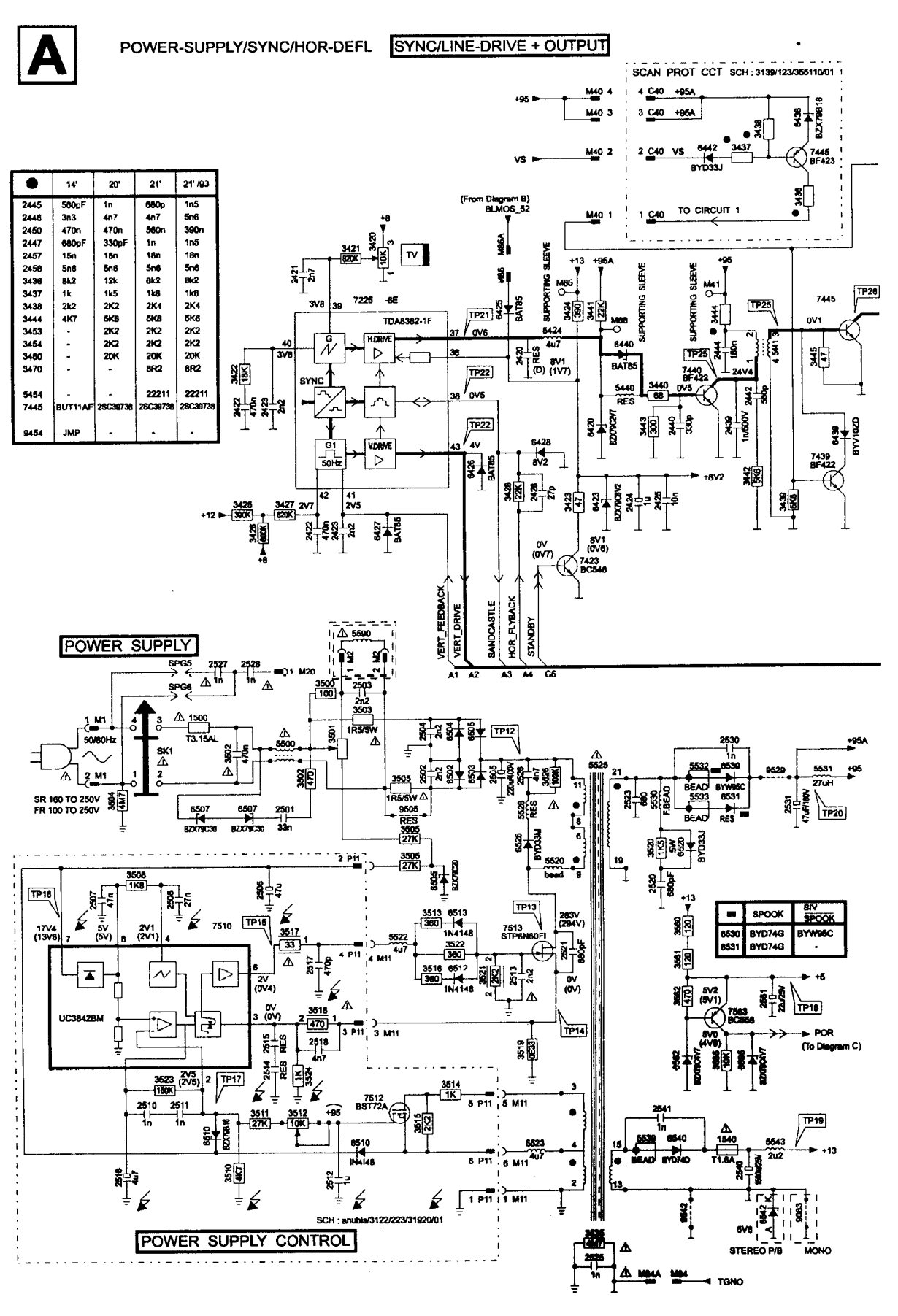

+80
7814
BC548
3618
1K
3901
3K3
2821
RES
FM_MONO
NICAM/BTSC-R-OUT
NICAM/BTSC-L-OUT
9805
RES
FROM/TO DIAGRAM H
1 B1
2 B1
3 B1
4 B1
7 B1
6 B1
5 B1
n.c
3878
RES
3903
56R
+5V
6801
BZX79-CV51
2819
22n
2818
100u
5V
7801
32
2817
10u
1V5
31
2V
30
1V3
27
2V1
28
DSCIL
3828
10K
3829
1K8
3830
22K
2816
1u
2815
220n
3831
RES
9806
3824
10K
3825
10K
9807
RES
3832
RES
STEREO AVAIL 0V
STEREO AVAIL 4V8
3877
100
29
0V
25
5V
26
Stabilisation
Pilot Detector
and Time Base
Voltage Error
Compensation
2V5
16
2812
1u7
19
2811
1u7
2V5
2820
100u
MPX
LP
MPX Demodulator
and Noise Detector
L+R
LP
75us
De-Emphasis
L+R
De-Matrix
and Switch
2V6
2810
10u
Spectral Band
12
2V5
2809
10u
Nideband
14
2801
10u
2V5
2822
RES
TDA3633
Spectral Band and
Nideband RMS-Detector
20
1V5
22
1V5
3826
8K2
2808
17n
3827
180
STEREO AVAILABLE
L-R
SAP
LP
DBX Expander
SAP
BP
SAP Detector
and Demodulator
Filter
Reference
Mode
3kHz Channel
Separation
3kHz Channel
2V4
2
1V5
3
SAP AVAIL 0V1
SAP AVAIL 4V8
3805
110K
3805
47K
FILTER ADJ.
6
1V5
4
5
2802
470n
2803
100n
10
2V4
9
2V4
MONO
STEREO
SAP
5V5
3V9
2V8
11
2V6
7
2V5
8
2V5
21
2V5
13
2V5
15
2V5
16
2V5
17
2804
10u
2806
1u
2807
1u
1
TP1
3812
1K8
3813
130
2805
220n
PILOT
CANC
22K
3807
22K
3807
INPUT LEVEL
CHANNEL SEP.
(300Hz)
3808
22K
22K
3809
SAP LEVEL
CHANNEL SEP.
(300Hz)
3810
22K
6804
BZX79-3V9
+80
3814
2K2
3815
560R
3816
RES
3817
RES
6802
1N4148
6803
1N4148
3876
100
STEREO/MONO
SAP_ON
SAP_AVAILABLE
FROM/TO DIAGRAM H
1 B2
+80
2 B2
3 B2
n.c
4 B2
n.c
6 B2
8 B2
7 B2
5 B2

A

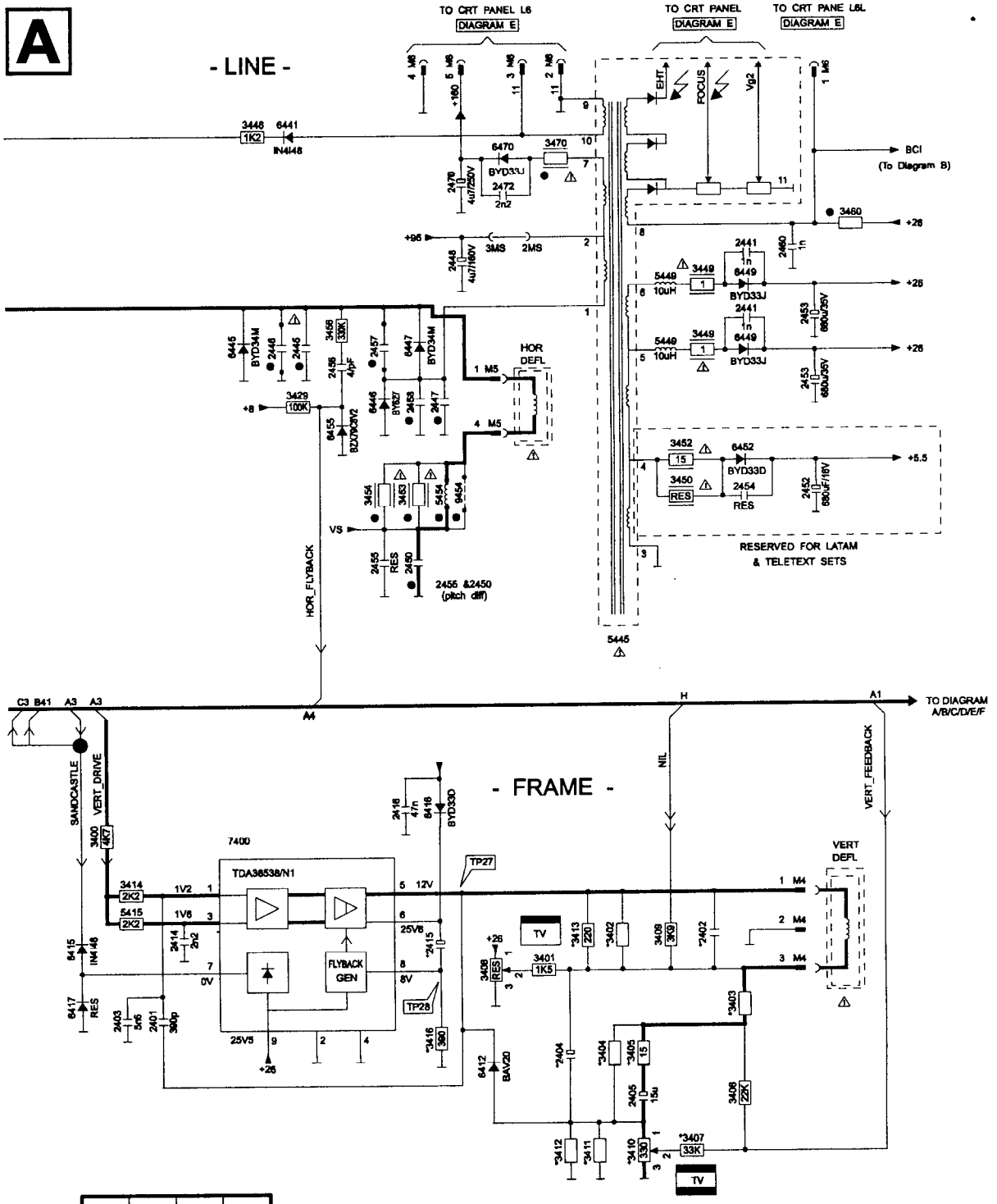
POWER-SUPPLY/SYNC/HOR-DEFL

SYNC/LINE-DRIVE + OUTPUT

●	14'	20'	21'	21'/93
2445	560pF	1n	680p	1n5
2448	3n3	4n7	4n7	5n6
2450	470n	470n	560n	390n
2457	680pF	330pF	1n	1n5
2457	15n	18n	18n	18n
2458	5n6	5n6	5n6	5n6
3436	8k2	12k	8k2	8k2
3437	1k	1k5	1k8	1k8
3438	2k2	2K2	2K4	2K4
3444	4K7	5K6	5K6	5K6
3453	-	2K2	2K2	2K2
3454	-	2K2	2K2	2K2
3460	-	20K	20K	20K
3470	-	-	8R2	8R2
5454	-	-	22211	22211
7445	BUT11AF	2SC39738	2SC39738	2SC39738
9454	JMP	-	-	-



■	SPOOK	SIV SPOOK
6530	BYD74G	BYW95C
6531	BYD74G	-

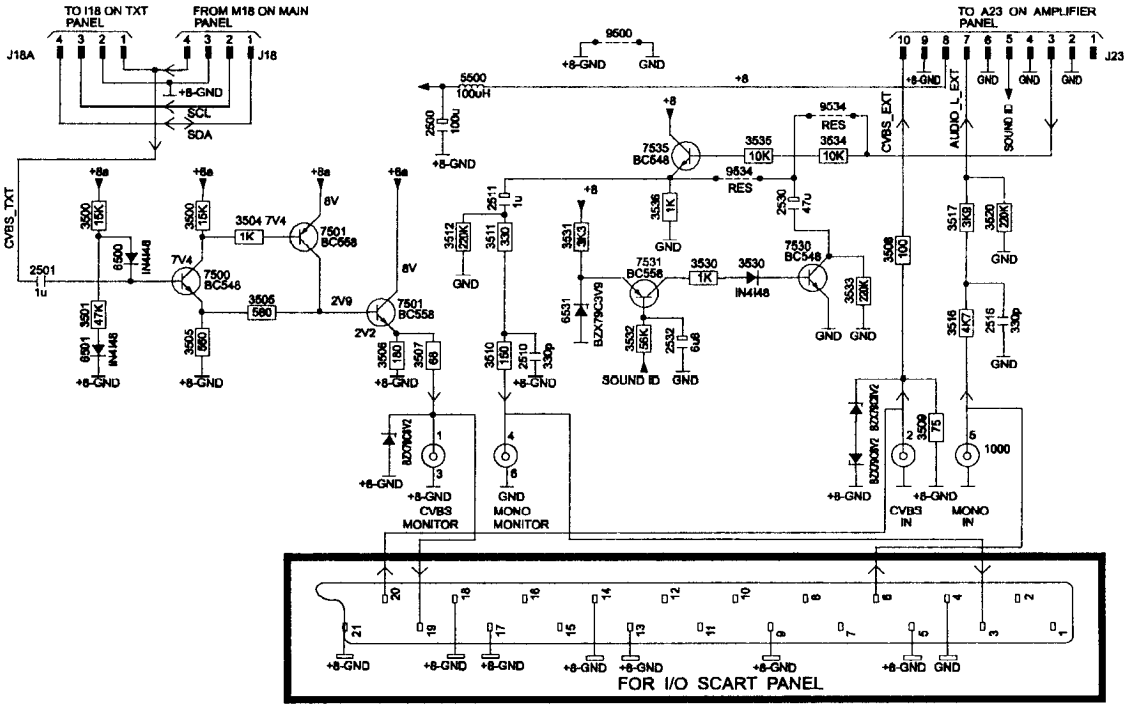


*	14'	20'	21'
2402	47n	100n	100n
2404	1500u	3300u	3300u
2415	22u	100u	100u
3402	390	22n	220
3403	3K3	2K7	2K7
3404	2K2	1K5	1K5
3407	-	-	8K2
3411	2R7	1R8	1R8
3412	2R7	1R8	1R8
3413	-	-	220
3416	1K	470	470

FRAME-OUTPUT

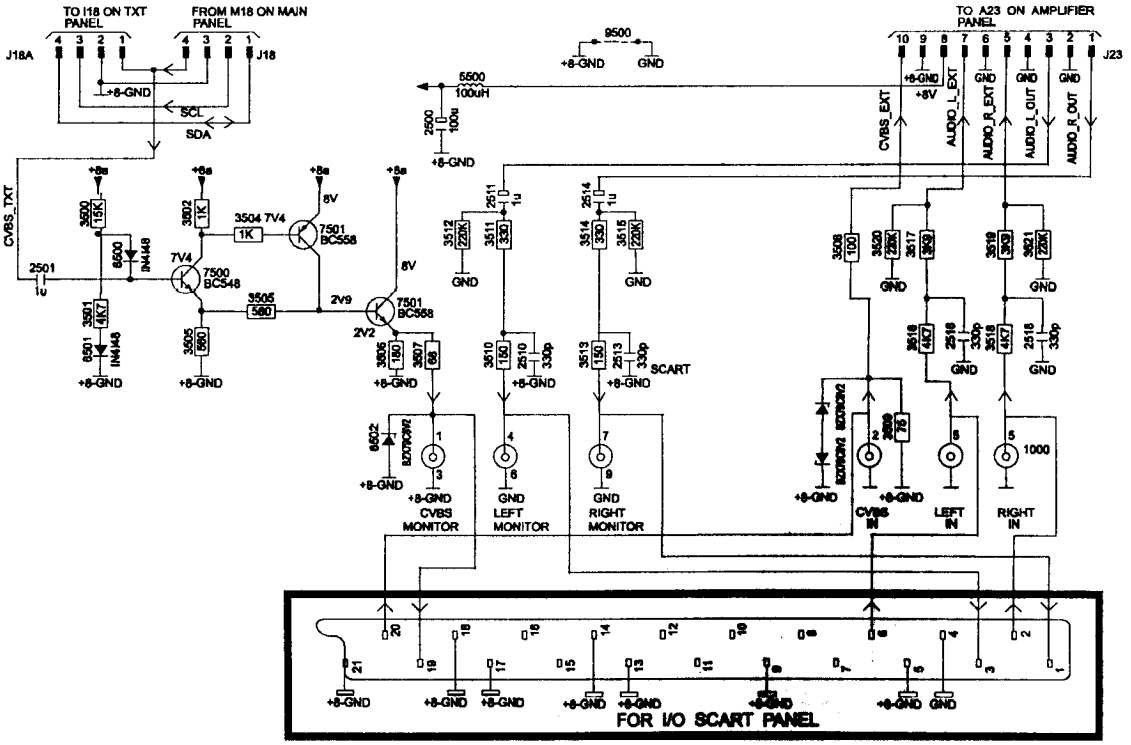
J1

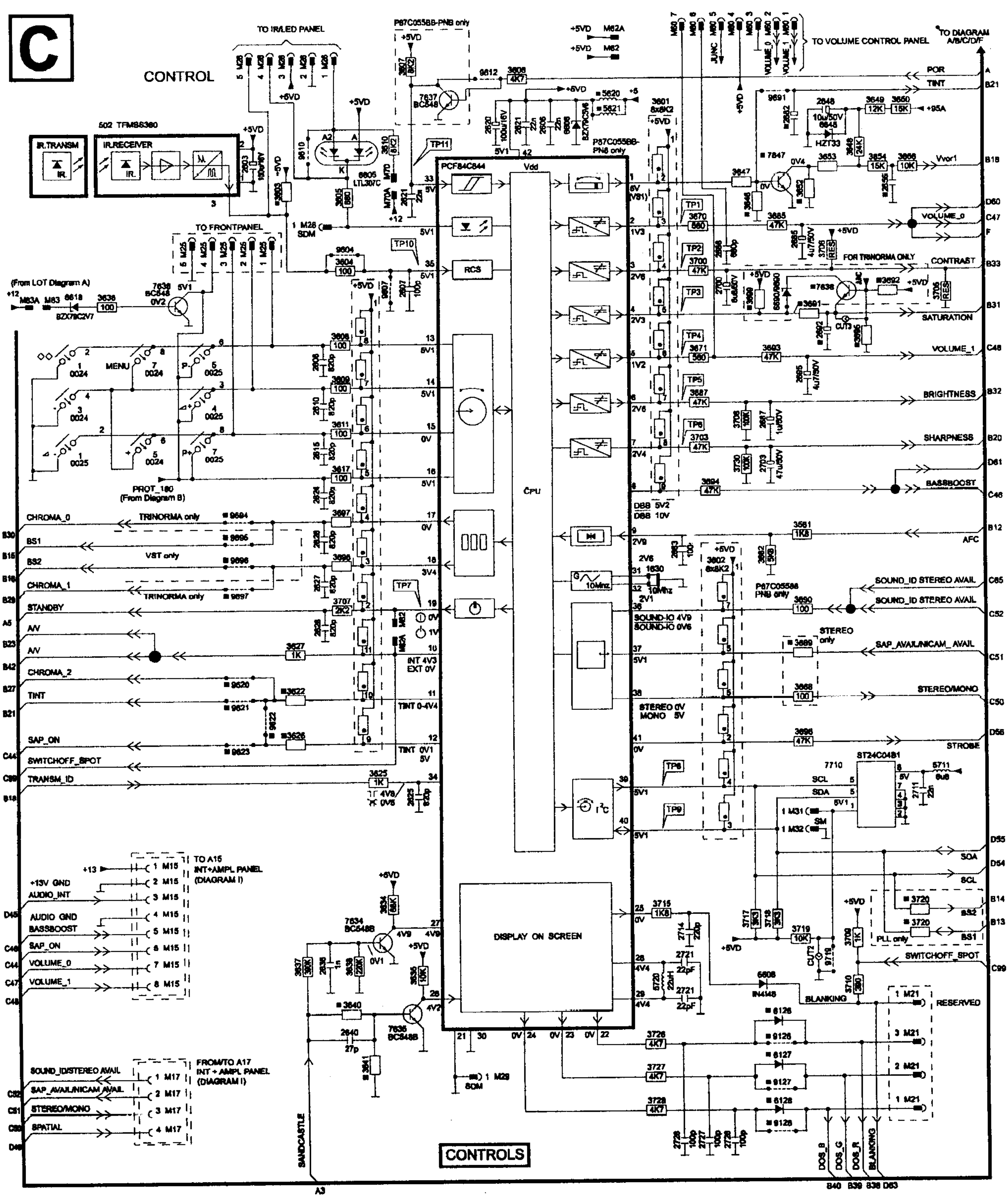
FOR MONO ONLY



J2

FOR STEREO ONLY



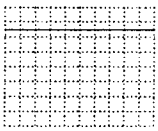


C
CONTROL
TO IR/LED PANEL
P87C055BB-PNB only
TO VOLUME CONTROL PANEL
TO DIAGRAM A/B/C/D/F
502 TFMS5360
IR.TRANSM
IR.RECEIVER
TO FRONTPANEL
(From LOT Diagram A)
PCF84C844
CPU
RCS
DISPLAY ON SCREEN
MENU
PROT_180
(From Diagram B)
POR
TINT
VOLUME_0
CONTRAST
FOR TRINORMA ONLY
SATURATION
VOLUME_1
BRIGHTNESS
SHARPNESS
BASSBOOST
AFC
SOUND_ID STEREO AVAIL
SAP_AVAIL/NICAM_AVAIL
STEREO/MONO
STROBE
ST24C04B1
SCL
SDA
PLL only
SWITCHOFF_SPOT
BLANKING
RESERVED
CHROMA_0
TRINORMA only
BS1
VST only
BS2
CHROMA_1
STANDBY
A/V
CHROMA_2
SAP_ON
TRANSM_ID
TO A15 INT+AMPL PANEL (DIAGRAM I)
+13V GND
AUDIO_INT
AUDIO GND
FROM/TO A17 INT + AMPL PANEL (DIAGRAM I)
SOUND_ID/STEREO AVAIL
SPATIAL
SANDCASTLE
CONTROLS
DOS_B
DOS_G
DOS_R

TP1

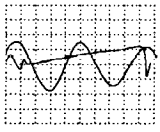
T=5us
Δv=2V

TP8



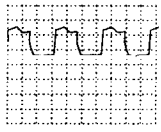
T=20ms
Δv=2V

TP13 ⏻



0,1V/div AC
1µs div

TP21



0,5V/div AC
20µs div

TP28

T=5ms
Δv=10v

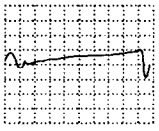
TP2

T=5us
Δv=2V

TP9

T=20ms
Δv=2V

TP14 ①

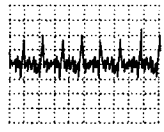


1V/div AC
0,5µs div

TP22

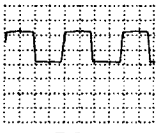
2V/div AC
20µs div

TP29



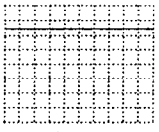
T=5ms
Δv=10v

TP3



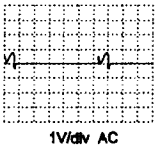
T=5us
Δv=2V

TP10



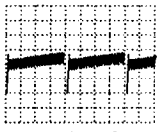
T=20ms
Δv=2V

TP14 ⏻



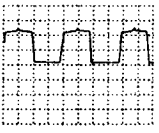
1V/div AC
5µs div

TP23



2V/div AC
5ms div

TP4

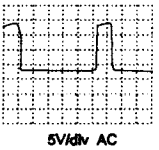


T=5us
Δv=2V

TP11

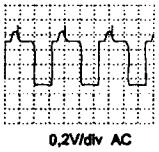
T=20ms
Δv=2V

TP15 ①



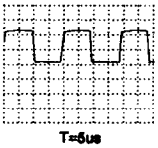
5V/div AC
5µs div

TP24



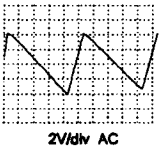
0,2V/div AC
20µs div

TP5



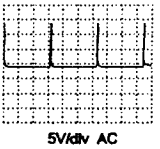
T=5us
Δv=2V

TP12 ①



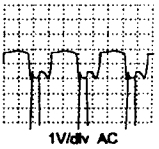
2V/div AC
2ms div

TP15 ⏻



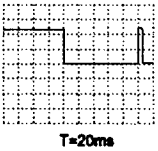
5V/div AC
10µs div

TP25



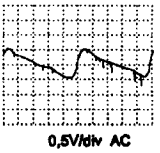
1V/div AC
20µs div

TP6



T=20ms
Δv=2V

TP12 ⏻



0,5V/div AC
2ms div

① TP16 = DC 16V

⏻ TP16 = DC 17V5

① TP17 = DC 2V2

⏻ TP17 = DC 2V5

① TP18 = DC 6V

⏻ TP18 = DC 6V

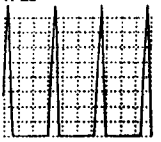
① TP19 = DC 13V

⏻ TP19 = DC 13V

① TP20 = DC 116V

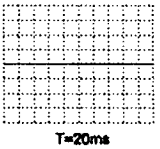
⏻ TP20 = DC 122V

TP26



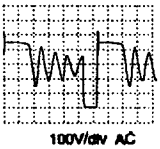
100V/div AC
20µs div

TP7



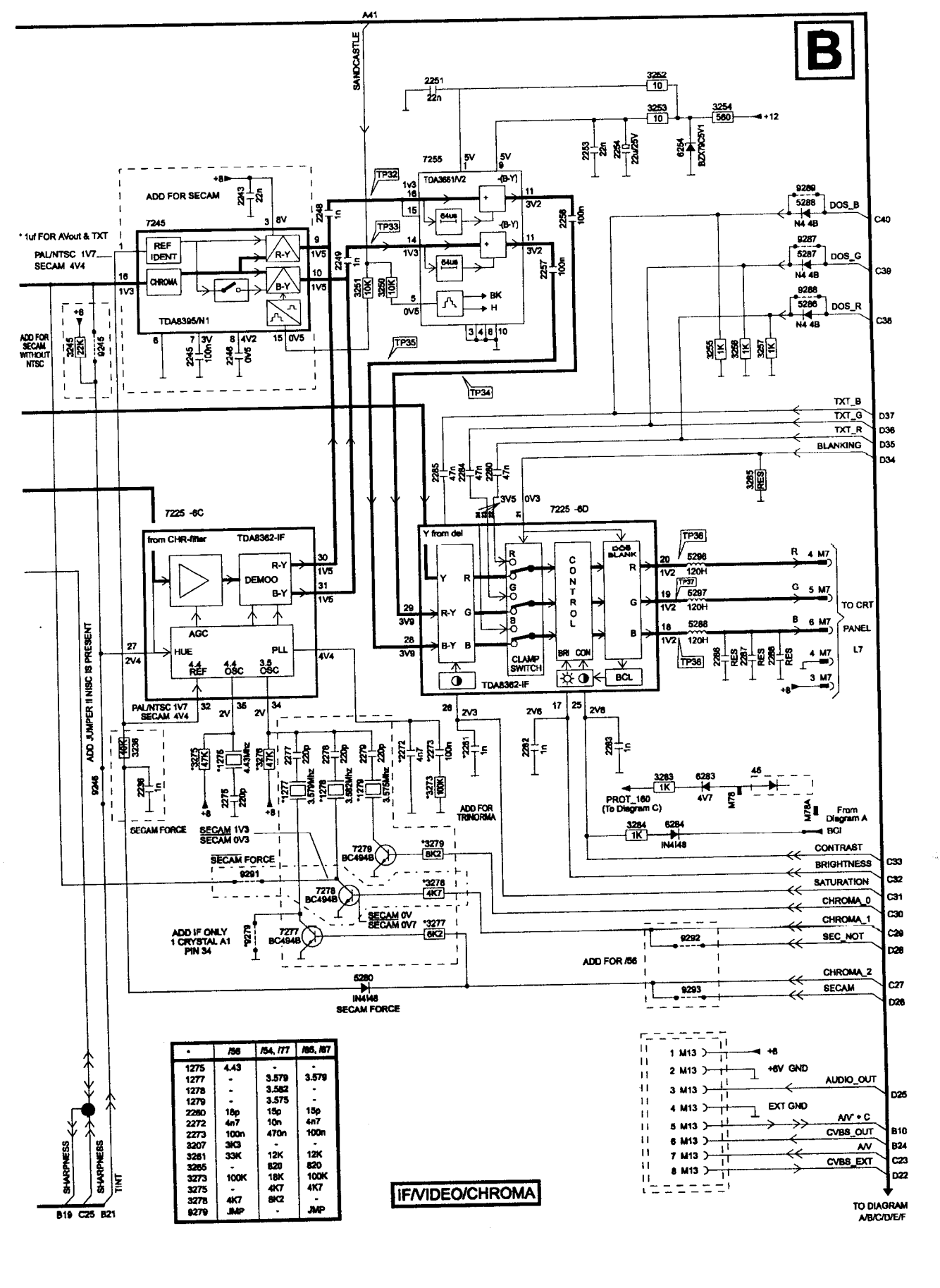
T=20ms
Δv=2V

TP13 ①



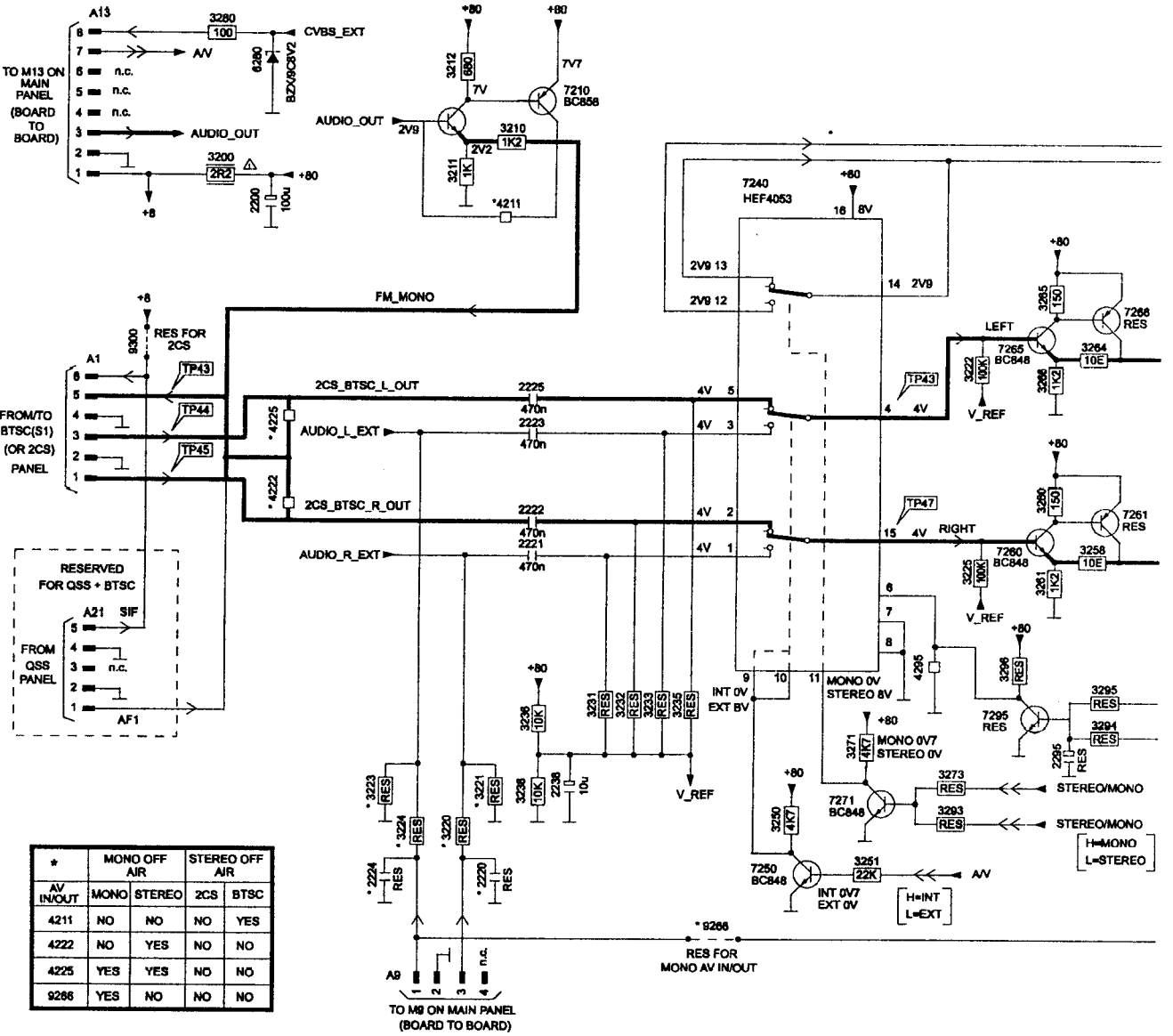
100V/div AC
5µs div

TP27



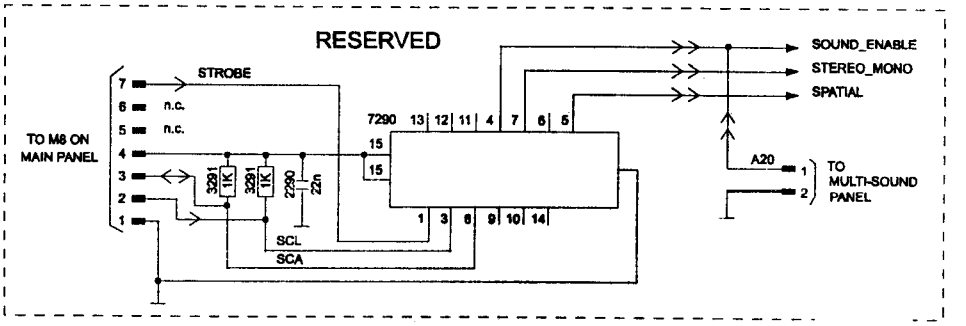
*	/56	/54, /77	/55, /87
1275	4.43	-	-
1277	-	3.579	3.579
1278	-	3.582	-
1279	-	3.575	-
2280	18p	15p	15p
2272	4n7	10n	4n7
2273	100n	470n	100n
3207	3K3	-	-
3261	33K	12K	12K
3265	-	820	820
3273	100K	18K	100K
3275	-	4K7	4K7
3278	4K7	8K2	-
9279	JMP	-	JMP

STEREO INTERFACE

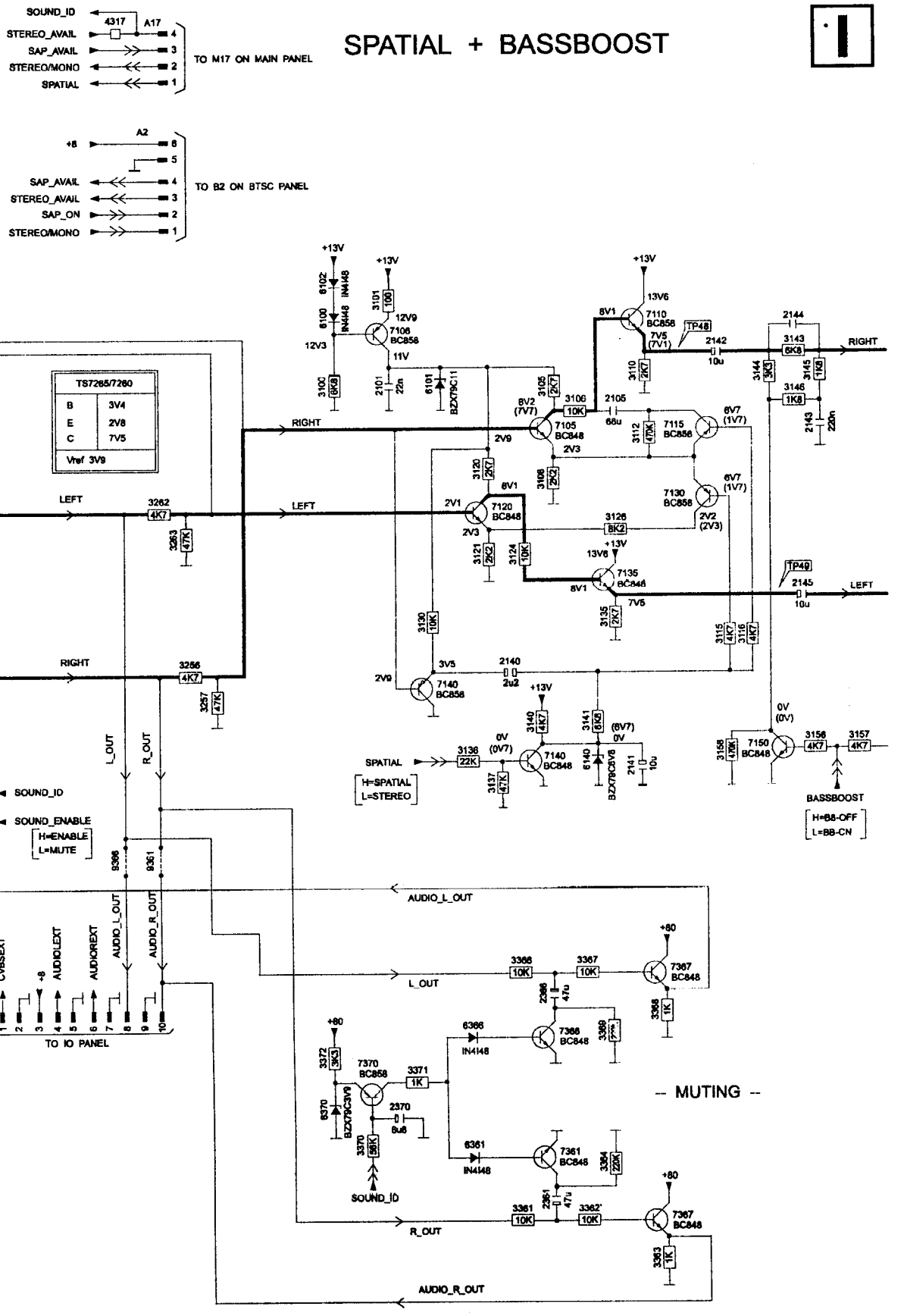


*	MONO OFF AIR		STEREO OFF AIR	
AV IN/OUT	MONO	STEREO	2CS	BTSC
4211	NO	NO	NO	YES
4222	NO	YES	NO	NO
4225	YES	YES	NO	NO
9266	YES	NO	NO	NO

*	STEREO AV IN ONLY	AV IN OUT
2220	330p	——
2224	330p	——
3220	3K9	——
3221	100K	——
3223	100K	——
3224	3K9	——
4211	NO	NO
A23	NO	YES



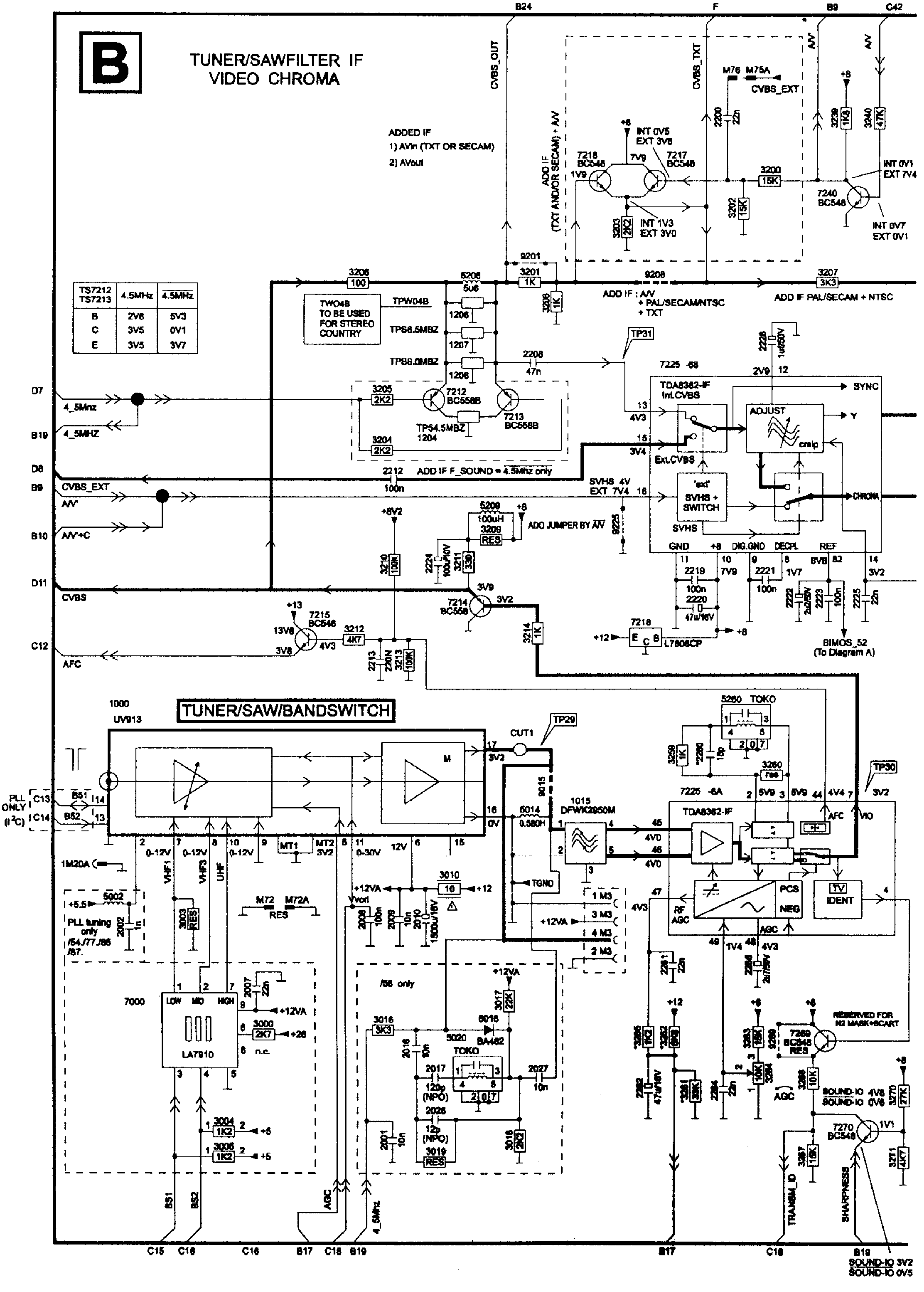
SPATIAL + BASSBOOST



B

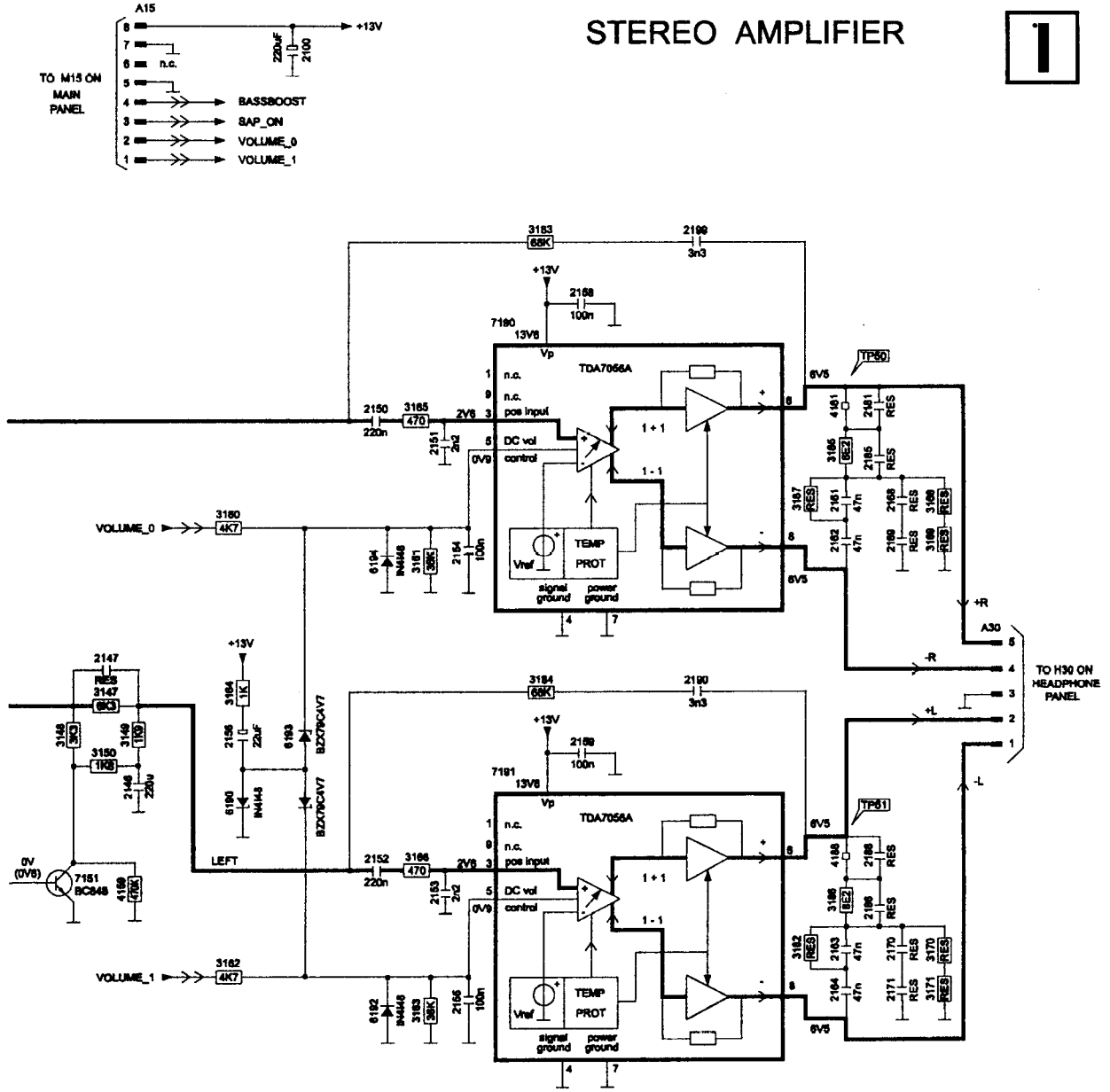
TUNER/SAWFILTER IF VIDEO CHROMA

TS7212 TS7213	4.5MHz	4.5MHz (overlined)
B	2V8	5V3
C	3V5	0V1
E	3V5	3V7



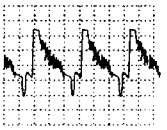
B24
F
B9
C42
CVBS_OUT
CVBS_TXT
M76 M75A
CVBS_EXT
ADDED IF
1) AVin (TXT OR SECAM)
2) AVout
ADD IF (TXT AND/OR SECAM) + A/V
INT 0V5
EXT 3V8
7218 BC548
7217 BC548
INT 1V3
EXT 3V0
7240 BC548
INT 0V1
EXT 7V4
INT 0V7
EXT 0V1
ADD IF : A/V
+ PAL/SECAM/NTSC
+ TXT
ADD IF PAL/SECAM + NTSC
TWO4B
TO BE USED
FOR STEREO
COUNTRY
TPW04B
TPS6.5MBZ
TPS6.0MBZ
TP31
7225 -6B
TDA8362-IF
Int.CVBS
Ext.CVBS
SVHS + SWITCH
ADJUST
SYNC
Y
CHROMA
GND
DIG.GND
DECPL
REF
4_5Mhz
4_5MHZ
7212 BC558B
7213 BC558B
TPS4.5MBZ
ADD IF F_SOUND = 4.5Mhz only
CVBS_EXT
A/V
A/V+C
CVBS
AFC
D7
B19
D8
B9
B10
D11
C12
SVHS 4V
EXT 7V4
ADD JUMPER BY A/V
7214 BC558
7215 BC548
7218
L7808CP
BIMOS_52
(To Diagram A)
1000
UV913
TUNER/SAW/BANDSWITCH
CUT1
TP29
1015
DFWK2950M
5260 TOKO
7225 -6A
TDA8362-IF
TP30
AFC
VIO
RF AGC
PCS
NEG
TV IDENT
AGC
PLL ONLY (I²C)
C13
C14
B51
B52
1M20A
VHF1
VHF3
UHF
MT1
MT2
TGNO
1 M3
3 M3
4 M3
2 M3
+12VA
PLL tuning only /54,/77,/85 /87.
M72 M72A
RES
7000
LOW
MID
HIGH
LA7910
n.c.
/56 only
5020
6016
BA482
TOKO
(NPO)
RESERVED FOR N2 MASK+SCART
7260 BC548 RES
SOUND-IO 4V6
SOUND-IO 0V6
7270 BC548
BS1
BS2
AGC
4_5Mhz
TRANSM_ID
SHARPNESS
C15
C16
C16
B17
C18
B19
B17
C18
B19
SOUND-IO 3V2
SOUND-IO 0V5

STEREO AMPLIFIER



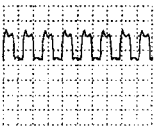
Muting circuitry		SOUND_ID = 4V9 No mute	SOUND_ID = 0V8 Mute
TS7370	B	4V9	2V
	E	3V2	2V7
	C	0V	2V6
TS7366/7361	B	0V	0V8
	E	0V	0V
	C	0V	0V
TS7367/7362	B	2V8	2V8
	E	2V1	2V1
	C	2V9	7V9

TP30



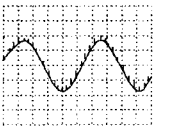
T=20us
Δv=0v5 AC

TP37



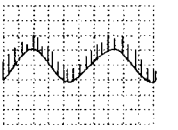
T=50us
Δv=1v

TP44



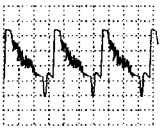
0,2V/div AC
0,2ms div

TP51



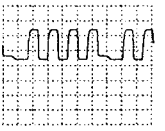
0,1V/div AC
0,2ms div

TP31



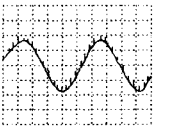
T=20us
Δv=0v5 AC

TP38



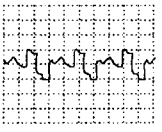
T=10us
Δv=1v

TP45



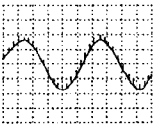
0,2V/div AC
0,2ms div

TP32



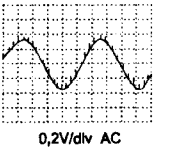
T=20us
Δv=0v2 AC

TP39



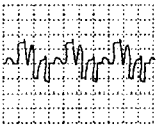
50mV/div AC
50ns div

TP46



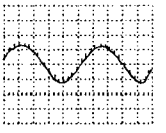
0,2V/div AC
0,2ms div

TP33



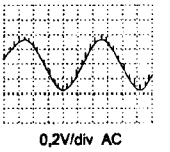
T=20us
Δv=0v2 AC

TP40



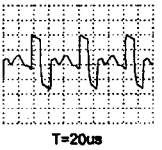
0,5V/div AC
0,2ms div

TP47



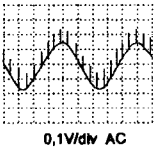
0,2V/div AC
0,2ms div

TP34



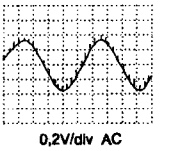
T=20us
Δv=0v2 AC

TP41



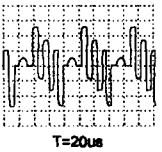
0,1V/div AC
0,2ms div

TP48



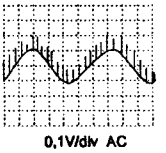
0,2V/div AC
0,2ms div

TP35



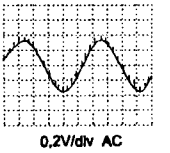
T=20us
Δv=0v2 AC

TP42



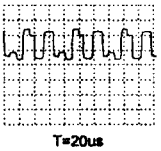
0,1V/div AC
0,2ms div

TP49



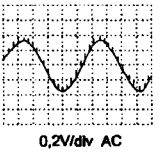
0,2V/div AC
0,2ms div

TP36



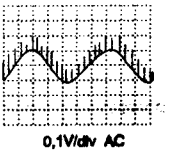
T=20us
Δv=1v

TP43



0,2V/div AC
0,2ms div

TP50



0,1V/div AC
0,2ms div